



A descriptive analysis of enrollment and achievement among limited English proficient students in New Jersey





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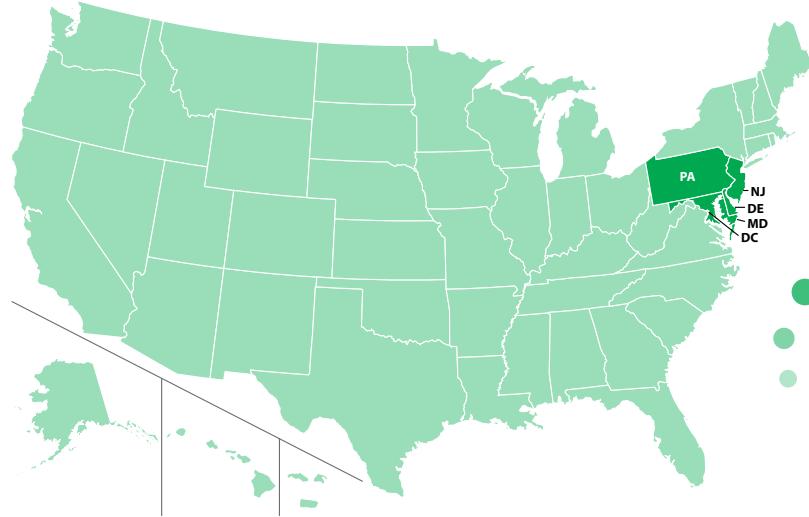
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April 2012

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A descriptive analysis of enrollment and achievement among limited English proficient students in New Jersey

This study describes enrollment and achievement trends of limited English proficient (LEP) students in New Jersey public schools between 2002/03 and 2008/09. It documents achievement gaps between LEP and general education students in language arts literacy and math. The achievement gaps in both subjects are wider at higher grades.

LEP students are the fastest growing segment of the student population in public schools in the United States, including in New Jersey. The New Jersey Department of Education (2008) defines LEP students as “students from pre-kindergarten through grade 12 whose native language is other than English and who have sufficient difficulty speaking, reading, writing, or understanding the English language, as measured by an English language proficiency test, so as to be denied the opportunity to learn successfully in the classrooms where the language of instruction is English.” (For definitions of key terms, see box 1 in the main report.)

According to the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (2011), approximately 5.3 million LEP students were enrolled in preK–12 in 2008/09, accounting for about 10.8 percent of public school students

in the United States. National enrollment of LEP students in public schools grew 57 percent between 1995 and 2009 (Flannery 2009)—almost six times the 10 percent growth rate in the general education population (students not enrolled in a language assistance program or a special education program). Similarly, the number of LEP students in New Jersey has been growing, in conjunction with a rise in foreign-born residents in the state. In 2009, people born in other countries accounted for over 20 percent of New Jersey’s population (Migration Policy Institute 2010b).

Nationally, an achievement gap exists between LEP students and non-LEP students in all subject areas, particularly those with high language demands (Strickland and Alvermann 2004). On statewide assessments across the country, the percentage of LEP students who achieve proficiency (as defined by each state) is 20–30 percentage points lower than the percentage of non-LEP students who do (Abedi and Dietel 2004). The No Child Left Behind (NCLB) Act of 2001 requires states to implement accountability systems to assess the education of all students, including students from traditionally underserved populations such as LEP students. The goal of the NCLB Act is to have all students reach proficiency (as defined by each state) and to close the achievement gap by 2014 (No Child Left Behind Act of 2001).

This study investigates two research questions on this topic in New Jersey:¹

- How did the enrollment of LEP students in New Jersey public schools change between 2002/03 and 2008/09?
- How did performance (the percentage scoring at the proficient or advanced proficient level) on state assessments in language arts literacy and math in grades 3, 4, 8, and 11 compare among LEP, former LEP (FLEP), and general education students in New Jersey public schools from 2002/03 to 2008/09?

To report changes in LEP student enrollment and performance, the study used enrollment and assessment data from the New Jersey Department of Education website. The descriptive analyses of enrollment data track the number of LEP students, languages spoken by LEP students, and languages spoken by the greatest number of LEP students statewide.

The analyses of performance data present the percentage of LEP students and general education students who scored at the proficient or advanced proficient level on the New Jersey state assessments in language arts literacy and math.² To account for differences in performance between students who were enrolled in a language assistance program and students who had exited a language assistance program within the previous two years, performance data for LEP students and FLEP students are also presented.

The study's main findings include:

- From 2002/03 to 2008/09, LEP student enrollment in New Jersey public schools

increased 6.6 percent, whereas total student enrollment increased less than 1 percent. During that period, LEP student enrollment increased from 4.5 percent of total student enrollment in 2002/03 to 4.7 percent in 2008/09.

- LEP students in New Jersey spoke 187 languages in 2008/09, up from 151 in 2002/03. In 2008/09, Spanish (spoken by 66.8 percent of LEP students in the state) had the most speakers, followed by Arabic (2.6 percent), Korean (2.5 percent), and Portuguese (2.0 percent).
- From 2002/03 to 2008/09, LEP students' performance in language arts literacy increased in all grades studied (grades 3, 4, 8, and 11). The increase was higher for grades 3 (10.9 percentage points) and 4 (21.1 percentage points) than for grades 8 (4.4 percentage points) and 11 (6.2 percentage points).
- From 2002/03 to 2008/09, LEP students' performance in math increased in all grades studied (grades 3, 4, 8, and 11). The increase was higher for grades 3 (10.5 percentage points) and 4 (22.7 percentage points) than for grades 8 (6.9 percentage points) and 11 (3.9 percentage points).
- General education students' performance in both language arts literacy and math was higher than LEP students' performance every year from 2002/03 to 2008/09.
- From 2002/03 to 2008/09, the achievement gap between LEP students and general education students in grades 3 and 4

narrowed in both language arts literacy and math. The achievement gap in grades 8 and 11 narrowed in language arts literacy but widened in math.

- In all grades and years studied, FLEP students' performance in language arts literacy and math was higher than that of LEP students but lower than that of general education students.

Notes

1. This report is one in a series of reports for jurisdictions in the Mid-Atlantic Region (which

also includes Delaware, the District of Columbia, Maryland, and Pennsylvania). The findings are presented in separate reports, as it may be inappropriate to compare LEP enrollment and achievement across jurisdictions because each jurisdiction has different LEP policies and definitions. The findings are also presented in separate reports because the available data varied by jurisdiction.

2. New Jersey categorizes student achievement into "partially proficient," "proficient," and "advanced proficient." Further details of the achievement categories are supplied in the main report and its appendices.

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This study describes enrollment and achievement trends of limited English proficient (LEP) students in New Jersey public schools between 2002/03 and 2008/09. It documents achievement gaps between LEP and general education students in language arts literacy and math. The achievement gaps in both subjects are wider at higher grades.

WHY THIS STUDY?

LEP students¹ are the fastest growing segment of the student population enrolled in public schools in the United States, including in New Jersey. This study examines student enrollment and achievement trends among LEP students in New Jersey public schools from 2002/03 to 2008/09. In addition, the study compares the achievement of public school LEP students and former LEP (FLEP) students (LEP students who exited a language assistance program within the previous two years; see box 1 for definitions of key terms) on New Jersey statewide assessments to that of the state's public school general education students (students who are not enrolled in either a language assistance program or a special education program) at four grade levels.

National increase in the number of LEP students

According to the National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs (2011), approximately 5.3 million LEP students were enrolled in public schools in the United States in 2008/09, accounting for about 10.8 percent of public school students. National enrollment of LEP students in public schools grew 57 percent between 1995 and 2009 (Flannery 2009)—almost six times the 10 percent growth rate in the general education population.

In the 1990s, the majority of LEP students were concentrated in a few states, including California, Florida, and Texas. Since then, school enrollment data reveal a growing number of LEP students across the country, with increasing diversity in the languages they speak (Shin and Bruno 2003; Shin and Kominski 2010). The growth in the number of LEP students reflects the growth in the number of foreign-born residents in the United States (Migration Policy Institute 2010a). According to the Migration Policy Institute (2010a), about 39 million foreign-born residents lived in the United States in 2009, accounting for 12.5 percent of the population. The number of foreign-born residents who obtained permanent legal resident status rose

BOX 1

Key terms

Achievement gap. The difference between how well students from minority subgroups, including limited English proficient (LEP) students, and low-income households perform on standardized tests as compared with their peers (No Child Left Behind Glossary 2001). In this report, the achievement gap in language arts literacy and math for each year is calculated for each grade level by subtracting the percentage of LEP students at a specific grade level who scored proficient or advanced proficient on a state assessment from the percentage of general education students at the same grade level who scored proficient or advanced proficient on the same test.

Foreign born. Anyone residing in the United States who was not a U.S. citizen at birth, including naturalized citizens, lawful permanent residents, certain legal nonimmigrants (for

example, people on student or work visas), people admitted under refugee or asylee status, and people illegally residing in the United States (Migration Policy Institute 2010a).

Former limited English proficient (FLEP) student. A student who achieved English proficiency on the New Jersey English language proficiency assessment and exited a language assistance program within the previous two years (New Jersey Department of Education 2008).

General education student. A student who is not enrolled in either a language assistance program or a special education program; this category includes FLEP students (New Jersey Department of Education 2008). New Jersey uses the term “general education” student in its presentation of assessment data instead of “non-LEP student,” which is the term used in the national literature. Therefore, both definitions are included here.

Limited English proficient (LEP) student. A student in preK–grade 12 whose native language is not English and who has sufficient difficulty speaking, reading, writing, or understanding the English language, as measured by an English language proficiency assessment, so as to be denied the opportunity to learn successfully in classrooms in which the language of instruction is English (New Jersey Department of Education 2008).

Non-limited English proficient (non-LEP) students. Non-LEP students consist of native speakers of English, those who speak a language other than English at home but are identified as initially fluent speakers of English, and those who were LEP students but have been reclassified as fluent English proficient (Abedi 2004).¹

Note

1. FLEP students are reclassified as fluent English proficient two years after achieving English proficiency on the state English language proficiency assessment and leaving a language assistance program.

from roughly 841,000 in 2000 to 1,131,000 in 2009, an increase of about 35 percent (U.S. Department of Homeland Security 2010).

The achievement gap between LEP and non-LEP students

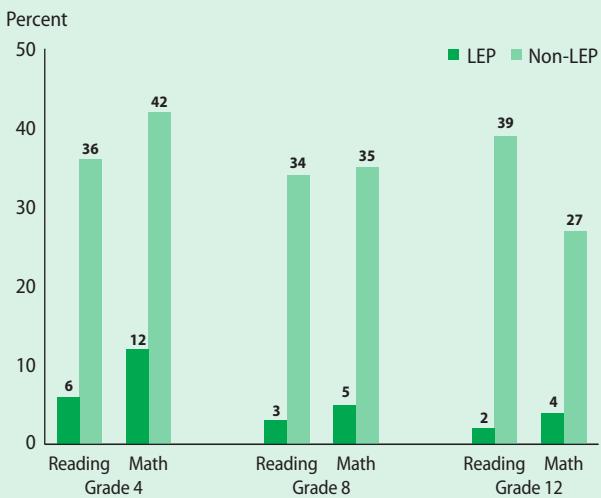
Nationally, an achievement gap exists between LEP students and non-LEP students (Strickland and Alvermann 2004). On statewide assessments across the country, the percentage of LEP students who achieve proficiency (as defined by each state) is 20–30 percentage points lower than the percentage of non-LEP students who do (Abedi and Dietel 2004). Studies using nationally representative assessment data on LEP students clearly and consistently show a large achievement gap between

LEP and non-LEP students in all subject areas (Abedi and Gándara 2006; Solano-Flores and Trumbull 2003; Wolf et al. 2008).

Recent scores on the National Assessment of Educational Progress (NAEP) illustrate the achievement gap between LEP and non-LEP students in reading and math at all grade levels studied (figure 1; U.S. Department of Education 2010). On the 2009 NAEP reading assessment, the achievement gap between LEP and non-LEP students was 30 percentage points in grade 4, 31 percentage points in grade 8, and 37 percentage points in grade 12. On the 2009 NAEP math assessment, the achievement gap was 30 percentage points in grades 4 and 8 and 23 percentage points in grade 12.

FIGURE 1

Percentage of students scoring at or above the proficient level on the 2009 National Assessment of Educational Progress, by grade, subject, and English proficiency status



Source: Authors' analysis based on data from U.S. Department of Education (2010).

Other studies have illustrated that the achievement gap between LEP students and non-LEP students widens at higher grades for reading/language arts and math. National studies using 2005 NAEP math data (Fry 2007) and Stanford 9 reading data (Abedi 2002) found that the gap between LEP students and non-LEP students was wider in secondary school grades than in elementary school grades. Similar results were found using state data (Gándara et al. 2003; Rhode Island KIDS COUNT 2011). A cohort analysis following a group of students from 1998 to 2001 found that LEP students' assessment scores tended to be comparable to non-LEP students' scores in the early elementary school grades but fell below non-LEP students' scores by grade 5 and continued to decrease throughout the students' school career (Gándara et al. 2003).

One possible explanation for the change in the achievement gap across grades outlined in the literature is that the language demand of the assessments increases as grade levels rise. According to the Standards for Educational and Psychological Testing (American Educational Research

Association, American Psychological Association, and National Council on Measurement in Education 1999, p. 91), "for all test takers, any test that employs language is, in part, a measure of their language skills. This is of particular concern for test takers whose first language is not the language of the test." The language demands of national and state assessments may affect the performance of LEP students with low English proficiency, inadvertently becoming measures of English language proficiency in addition to being content area tests.

The achievement gap between LEP and non-LEP students reported in the literature is wider in reading/language arts, which has a high level of language demand, than in subjects such as math, where language is not the target of measurement (Abedi 2002; Abedi and Herman 2010). In a study using data from several school districts in different states, Abedi, Leon, and Mirocha (2003) found that the achievement gap between LEP and non-LEP students is widest in reading, substantially narrower in science, and nonexistent in math items involving computations (but not in math items involving the use of language, such as word problems).

Legislation affecting the assessment of LEP students

Closing the achievement gap between subgroups such as LEP students and non-LEP students is a critical step toward achieving the No Child Left Behind Act (NCLB) of 2001 goal of having all students reach proficiency (as defined by each state) by 2014. As part of this goal, the law requires states to implement accountability systems to assess the education of all students, including traditionally underserved populations such as LEP students. Under Title I of NCLB, all students, including LEP students, must be tested annually in grades 3–8 and once in high school, and states must provide LEP students with appropriate accommodations, including modifications of the assessment language and format, until the students achieve English language proficiency. Because LEP students are in the process of developing English language

skills, state assessments in a student's non-native language may introduce language that is too complex for them to understand. In such cases, accommodations may be made for these students during the assessment to minimize the impact of such complex language without giving LEP students an unfair advantage over students who do not receive accommodations (Abedi 2001; see box 3 later in the report).

Regional need for this study

In 2009, the Pennsylvania Department of Education registered a need with Regional Educational Laboratory (REL) Mid-Atlantic for a "comprehensive demographic analysis of the state's LEP population," including "typical growth trends for this group by language, etc."² Also requested was "an analysis of various achievement indicators for LEP students." REL Mid-Atlantic shared this request and its proposed data analysis with other state education agency representatives in the Mid-Atlantic Region, which also includes Delaware, the District of Columbia, Maryland, and New Jersey. The deputy commissioner of education and district superintendents in New Jersey expressed an interest in knowing more about the trends in

enrollment and achievement of LEP students in their state's public schools.

Research questions

This study addresses two research questions:

- How did the enrollment of LEP students in New Jersey public schools change between 2002/03 and 2008/09?
- How did performance (the percentage scoring at the proficient or advanced proficient level) on state assessments in language arts literacy and math in grades 3, 4, 8, and 11 compare among LEP, FLEP, and general education students in New Jersey public schools from 2002/03 to 2008/09?

The study data are described in box 2 and in greater detail in appendix A.

TRENDS IN ENROLLMENT OF LEP STUDENTS

From 2002/03 to 2008/09, LEP student enrollment in New Jersey public schools increased 6.6 percent,

BOX 2

Data sources

This study draws from student enrollment and assessment data in New Jersey. Both sets of data include all public school students in New Jersey in grades K–12; students from non-public schools are not included.

Enrollment data are from the 2002/03–2008/09 New Jersey Department of Education enrollment reports and its Bureau of Bilingual/English as a Second Language (ESL) Education (2009) website. These data were used to track total student enrollment and limited English proficient (LEP)

student enrollment and to identify the most common languages spoken by LEP students. The 2002/03 school year was selected as the base year because that was the first year that states were required to disaggregate and report traditionally underserved populations under the No Child Left Behind Act. The 2008/09 school year was the latest year for which data were available.

State assessment data were used to track the performance of LEP, former LEP, and general education students on statewide language arts literacy and math assessments over time. These data—from the New Jersey

Assessment of Skills and Knowledge (NJ ASK) for grades 3 and 4, the Grade Eight Proficiency Assessment (GEPA), and the High School Proficiency Assessment (HSPA) for grade 11—show changes in performance among all groups of students.

The data from NJ ASK for grade 3 span 2003/04–2007/08, and the data from NJ ASK for grade 4 span 2002/03–2007/08. Both assessments were redesigned in 2008/09. The data from GEPA span 2002/03–2006/07; the NJ ASK for grades 5–8 replaced GEPA in 2007/08. The data from HSPA for grade 11 span 2002/03–2008/09.

whereas total public school enrollment increased 0.8 percent. Despite a net gain in both LEP student enrollment and total student enrollment in New Jersey public schools, neither increased continuously over the period studied (table 1).

The number of languages spoken by New Jersey students illustrates the diversity of the population. In 2008/09, 187 languages were spoken by LEP students, up from 151 in 2002/03 (table 2).

TABLE 1
Total public school enrollment and enrollment of LEP students in New Jersey public schools, 2002/03–2008/09

Year	Total enrollment		Percent of total enrollment
	Number	LEP student enrollment	
2002/03	1,367,249	61,079	4.5
2003/04	1,380,882	66,451	4.8
2004/05	1,390,826	61,287	4.4
2005/06	1,393,782	60,807	4.4
2006/07	1,387,963	61,828	4.5
2007/08	1,378,631	61,904	4.5
2008/09	1,377,728	65,080	4.7

LEP is limited English proficient.

Source: Authors' analysis based on data for 2002/03 from L. Ramella (personal communication, August 11, 2011) and data for 2003/04–2008/09 from New Jersey Department of Education (2009) and New Jersey Department of Education, Bureau of Bilingual/ESL Education (2004, 2005, 2009).

TABLE 2
Number of native languages spoken by LEP students in New Jersey public schools, 2002/03–2008/09

Year	Number of languages
2002/03	151
2003/04	151
2004/05	155
2005/06	154
2006/07	167
2007/08	168
2008/09	187

Source: Authors' analysis based on data for 2002/03 from L. Ramella (personal communication, August 11, 2011) and data for 2003/04–2008/09 from New Jersey Department of Education, Bureau of Bilingual/ESL Education (2004, 2005, 2009).

In 2008/09, Spanish speakers accounted for the largest percentage of LEP students (66.8 percent), followed by Arabic (2.6 percent), Korean (2.5 percent), and Portuguese (2.0 percent; table 3). The percentage of LEP students speaking each language remained fairly constant over 2002/03–2008/09, with a maximum year-to-year change of 0.5 percentage point for all groups except Spanish speakers and speakers of "other" languages.

TRENDS IN PERFORMANCE OF LEP STUDENTS

Under Title I of the No Child Left Behind Act, all students, including LEP students, are required to participate in their state's annual standards-based testing program in reading/language arts, math, and, as of 2008, science.³

The New Jersey assessment program, including the state achievement assessments and the English language proficiency assessment, is described in box 3.

The New Jersey Department of Education includes data for both LEP students and FLEP students in its measures of adequate yearly progress of the LEP student population and includes data for FLEP students in the general education population. To maintain consistency with New Jersey Department of Education reporting, FLEP students are included in the general education data in all years studied (2002/03–2008/09) and presented separately for the years in which data were available (2005/06–2008/09).⁴

The following sections compare the performance (the percentage scoring at the proficient or advanced proficient level) of LEP students, FLEP students, and general education students on New Jersey state assessments in grades 3, 4, 8, and 11. The percentage of students who scored at the proficient or advanced proficient level on each assessment from 2002/03 to 2008/09 is also listed in appendix C. The annual and average differences between groups from 2002/03 to 2008/09 are in appendix D.

TABLE 3

Number and percentage of LEP students in New Jersey public schools, by native language, 2005/06–2008/09

Native language	2005/06		2006/07		2007/08		2008/09	
	Number of LEP students	Percent of the total number of LEP students	Number of LEP students	Percent of the total number of LEP students	Number of LEP students	Percent of the total number of LEP students	Number of LEP students	Percent of the total number of LEP students
Spanish	39,605	65.1	42,818	69.3	42,367	68.4	43,485	66.8
Arabic	1,220	2.0	1,516	2.5	1,439	2.3	1,692	2.6
Korean	1,408	2.3	1,611	2.6	1,550	2.5	1,640	2.5
Portuguese	1,478	2.4	1,444	2.3	1,288	2.1	1,321	2.0
Gujarati	972	1.6	1,083	1.8	1,072	1.7	1,212	1.9
Haitian Creole (French)	1,004	1.7	866	1.4	1,047	1.7	1,173	1.8
Mandarin (Chin, Kuoyu, Pekingese, N. Chinese, Putonghua)	923	1.5	1,034	1.7	941	1.5	1,076	1.7
Urdu	617	1.0	692	1.1	618	1.0	733	1.1
Polish	892	1.5	815	1.3	713	1.2	600	0.9
Tagalog (Pilipino, Filipino)	515	0.8	549	0.9	532	0.9	564	0.9
Bengali	—	—	—	—	—	—	502	0.8
Vietnamese	387	0.6	533	0.9	487	0.8	495	0.8
Other	11,786	19.4	8,867	14.3	9,850	15.9	10,587	16.3
Total number of LEP students	60,807		61,828		61,904		65,080	

LEP is limited English proficient.

— is not available because Bengali was not listed as a language with high enrollment until 2008/09.

Note: Data on language groups with the highest enrollment of LEP students were not available for 2002/03, 2003/04, and 2004/05. Percentages do not sum to 100 percent because of rounding.

Source: Authors' analysis based on data from New Jersey Department of Education, Bureau of Bilingual/ESL Education (2009).

Grade 3

Achievement in language arts literacy and math in grades 3 and 4 is measured using the New Jersey Assessment of Skills and Knowledge (NJ ASK).

Language arts literacy. Overall performance on the grade 3 language arts literacy assessment increased from 2003/04 to 2007/08 (figure 2). From 2003/04 to 2007/08, LEP students' performance increased 10.9 percentage points, and general education students' performance increased 4.8 percentage points. As a result, the achievement gap in grade 3 language arts literacy between LEP and general education students narrowed 6.1 percentage points, from 37.6 percentage points to 31.5 during the period studied.

As with LEP students and general education students, FLEP students' performance on the grade 3 language arts literacy assessment increased from 2005/06 to 2007/08. FLEP students' performance was closer to that of general education students than to that of LEP students. By 2007/08, the difference in performance between FLEP and general education students was 8.4 percentage points, whereas the difference between FLEP and LEP students was 23.1 percentage points. From 2005/06 to 2007/08, the difference in performance between FLEP and LEP students decreased (by 4.1 percentage points), as did the difference between FLEP and general education students (by 5.0 percentage points).

Math. Overall performance on the grade 3 math assessment increased from 2003/04 to 2005/06

BOX 3

New Jersey assessment program

Academic achievement assessments. Academic achievement in language arts literacy and math is measured by the New Jersey Assessment of Skills and Knowledge (NJ ASK) in grades 3 and 4,¹ the Grade Eight Proficiency Assessment (GEPA) in grade 8,² and the High School Proficiency Assessment in grade 11. For each assessment, scores are reported as scale scores, which range from 100 to 300, in each content area.³ The proficiency levels associated with score ranges are:

- Partially proficient (100–199).
- Proficient (200–249).
- Advanced proficient (250–300).

Scores at the partially proficient level are considered below the state minimum of proficiency and indicate a need for additional instructional support. Complete state definitions of the proficiency levels for each assessment are in appendix B.

All students in New Jersey must take the statewide achievement assessments. The only exception is for limited English proficient (LEP) students in elementary and middle school who enter the United States and a language assistance program after July 1 of the academic year in which the assessment is administered. These newly entered LEP students do not have to take the language arts literacy portion of the state assessments but must take the math and science sections. Newly entered LEP students in high school must take all sections of

the state assessment (language arts literacy, math, and science).

Accommodations for LEP students who qualify include additional time to complete the test (up to 150 percent of the administration time), translation of the test directions (not the test) into the student's native language, and use of a bilingual dictionary. LEP students can be tested with one or more of these accommodations.

English language proficiency assessments. A home language survey is given to all students. Those who indicate a native language other than English are given the state English language proficiency test. Based on the results, students are classified as LEP students or general education students.

New Jersey uses Assessing Comprehension and Communication in English State-to-State for English Language Learners® (ACCESS for ELLs) to assess English language proficiency. ACCESS for ELLs measures LEP students' social and academic English language proficiency in the four language domains: listening, speaking, reading, and writing. Six levels are used to identify the progression of language skills on the path to English language proficiency:

- Level 1—entering: knows and uses minimal social language and minimal academic language with visual support.
- Level 2—beginning: knows and uses some social English and

general academic language with visual support.

- Level 3—developing: knows and uses social English and some specific academic language with visual support.
- Level 4—expanding: knows and uses social English and some technical academic language.
- Level 5—bridging: knows and uses social and academic language working with grade level material.
- Level 6—reaching: knows and uses social and academic language at the highest level measured by this assessment (World-Class Instructional Design and Assessment Consortium 2011).

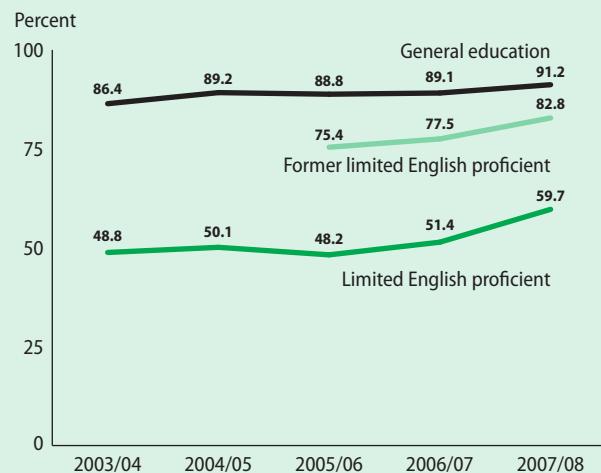
For K–12 LEP students, an ACCESS for ELLs proficiency level of 4.5 or higher is required for exiting a language assistance program if multiple criteria support the decision (such as academic performance, including standardized tests in English, and input of teaching staff).

Notes

1. In 2006, the New Jersey Department of Education expanded state assessments to include grades 5–7. Because of lack of longitudinal data, the assessment results for grades 5–7 are not included in this report.
2. The NJ ASK for grade 8 replaced the GEPA in 2007/08. The data from the grade 8 NJ ASK are not comparable to the GEPA data and are not included in this report.
3. A scale score is a conversion of a student's raw score on a test to a common scale that allows for a numerical comparison between tests over time.

FIGURE 2

Percentage of students scoring at the proficient or advanced proficient level in language arts literacy on the grade 3 New Jersey Assessment of Skills and Knowledge, by English proficiency status, 2003/04–2007/08



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 83,162$ in 2003/04, $n = 83,057$ in 2004/05, $n = 83,190$ in 2005/06, $n = 83,218$ in 2006/07, and $n = 83,135$ in 2007/08; for limited English proficient students, $n = 6,191$ in 2003/04, $n = 4,114$ in 2004/05, $n = 3,786$ in 2005/06, $n = 3,625$ in 2006/07, and $n = 3,723$ in 2007/08; for former limited English proficient students, $n = 2,144$ in 2005/06, $n = 2,249$ in 2006/07, and $n = 2,053$ in 2007/08.

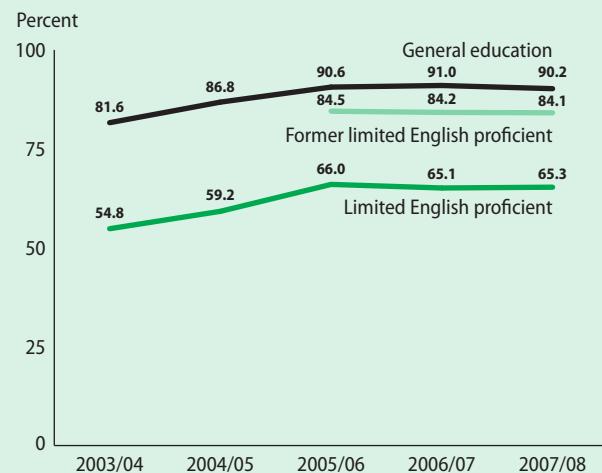
Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

and leveled off thereafter (figure 3). From 2003/04 to 2007/08, LEP students' performance increased 10.5 percentage points, and general education students' performance increased 8.6 percentage points. As a result, the achievement gap in grade 3 math between LEP and general education students narrowed 1.9 percentage points during the same period—less than the 6.1 percentage points for grade 3 language arts literacy.

FLEP students' performance on the grade 3 math assessment followed a trend similar to that of both LEP and general education students, decreasing less than 1 percentage point from 2005/06 to 2007/08. As with grade 3 language arts literacy, FLEP students' performance in grade 3 math was closer to that of general education students than to that of LEP students. By 2007/08, the difference in

FIGURE 3

Percentage of students scoring at the proficient or advanced proficient level in math on the grade 3 New Jersey Assessment of Skills and Knowledge, by English proficiency status, 2003/04–2007/08



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 83,193$ in 2003/04, $n = 83,104$ in 2004/05, $n = 83,288$ in 2005/06, $n = 83,319$ in 2006/07, and $n = 83,245$ in 2007/08; for limited English proficient students, $n = 6,255$ in 2003/04, $n = 4,746$ in 2004/05, $n = 4,529$ in 2005/06, $n = 4,330$ in 2006/07, and $n = 4,390$ in 2007/08; for former limited English proficient students, $n = 2,147$ in 2005/06, $n = 2,252$ in 2006/07, and $n = 2,052$ in 2007/08.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

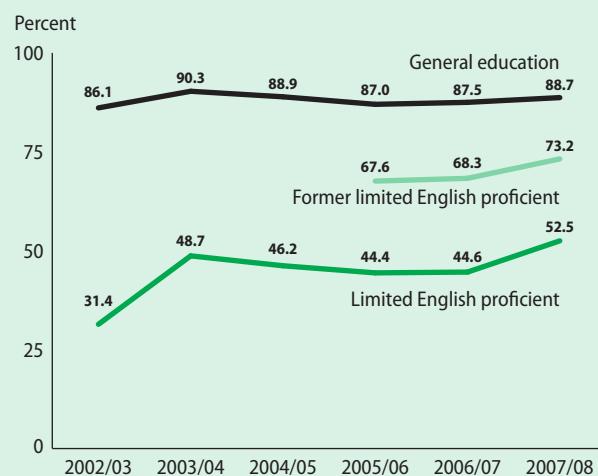
performance between FLEP and general education students was 6.1 percentage points, whereas the difference between FLEP and LEP students was 18.8 percentage points.

Grade 4

Language arts literacy. Overall performance on the grade 4 language arts literacy assessment fluctuated from 2002/03 to 2007/08, particularly among LEP students (figure 4). The largest year-to-year change in performance was 17.3 percentage points for LEP students and 4.2 percentage points for general education students, both from 2002/03 to 2003/04. As with grade 3 language arts literacy, LEP students' performance in grade 4 language arts literacy increased. From 2002/03 to 2007/08, LEP students' performance increased

FIGURE 4

Percentage of students scoring at the proficient or advanced proficient level in language arts literacy on the grade 4 New Jersey Assessment of Skills and Knowledge, by English proficiency status, 2002/03–2007/08



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 86,735$ in 2002/03, $n = 83,144$ in 2003/04, $n = 84,110$ in 2004/05, $n = 82,580$ in 2005/06, $n = 82,641$ in 2006/07, and $n = 82,540$ in 2007/08; for limited English proficient students, $n = 4,104$ in 2002/03, $n = 5,306$ in 2003/04, $n = 3,337$ in 2004/05, $n = 3,017$ in 2005/06, $n = 3,063$ in 2006/07, and $n = 2,802$ in 2007/08; for former limited English proficient students, $n = 1,943$ in 2005/06, $n = 1,767$ in 2006/07, and $n = 1,791$ in 2007/08.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

21.1 percentage points, whereas general education students' performance increased 2.6 percentage points. As a result, the achievement gap in grade 4 language arts literacy between LEP and general education students narrowed 18.5 percentage points, from 54.7 percentage points to 36.2. During the period studied, the average achievement gap in language arts literacy between LEP and general education students was wider in grade 4 (43.5 percentage points) than in grade 3 (37.3 percentage points).

From 2005/06 to 2007/08, FLEP students' performance on the grade 4 language arts literacy assessment increased 5.6 percentage points, whereas LEP students' performance increased 8.1 percentage points and general education students' performance increased 1.7 percentage points. From

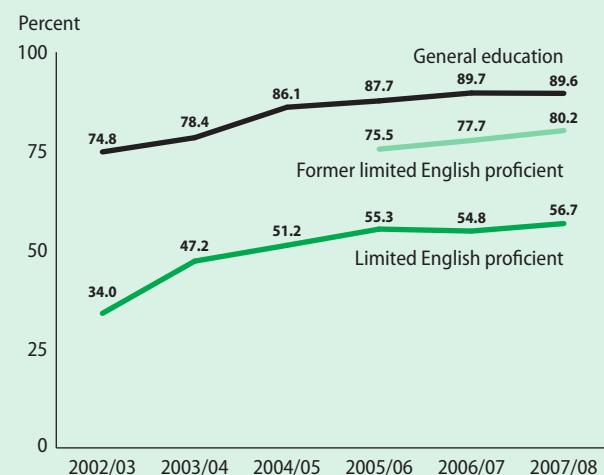
2005/06 to 2007/08, FLEP students' performance was closer to that of general education students than to that of LEP students. By 2007/08, the difference in performance between FLEP and general education students was 15.5 percentage points, whereas the difference between FLEP and LEP students was 20.7 percentage points.

From 2005/06 to 2007/08, the difference in performance on the grade 4 language arts literacy assessment between FLEP and LEP students decreased 2.5 percentage points, from 23.2 percentage points to 20.7, whereas the difference between FLEP and general education students decreased 3.9 percentage points, from 19.4 percentage points to 15.5.

Math. Overall performance on the grade 4 math assessment increased from 2002/03 to 2007/08,

FIGURE 5

Percentage of students scoring at the proficient or advanced proficient level in math on the grade 4 New Jersey Assessment of Skills and Knowledge, by English proficiency status, 2002/03–2007/08



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 86,586$ in 2002/03, $n = 83,032$ in 2003/04, $n = 84,152$ in 2004/05, $n = 82,582$ in 2005/06, $n = 82,659$ in 2006/07, and $n = 82,586$ in 2007/08; for limited English proficient students, $n = 4,130$ in 2002/03, $n = 5,361$ in 2003/04, $n = 3,990$ in 2004/05, $n = 3,725$ in 2005/06, $n = 3,701$ in 2006/07, and $n = 3,469$ in 2007/08; for former limited English proficient students, $n = 1,943$ in 2005/06, $n = 1,764$ in 2006/07, and $n = 1,791$ in 2007/08.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

rising 14.8 percentage points among general education students and 22.7 percentage points among LEP students (figure 5). As a result, the achievement gap in grade 4 math between LEP and general education students decreased 7.9 percentage points, from 40.8 percentage points to 32.9 during the period studied.

The average achievement gap in math between LEP and general education students for 2002/03–2007/08 was wider in grade 4 (34.5 percentage points) than in grade 3 (26.0 percentage points). However, the average achievement gap in grade 4 between LEP and general education students was narrower in math (34.5 percentage points) than in language arts literacy (43.5 percentage points).

The increase in performance on the grade 4 math assessment from 2005/06 to 2007/08 was larger for FLEP students (4.7 percentage points) than for LEP students (1.4 percentage points) and general education students (1.9 percentage points). During this period, FLEP students' performance was closer to that of general education students than to that of LEP students. In 2007/08, the difference in performance between FLEP and general education students was 9.4 percentage points, whereas the difference between FLEP and LEP students was 23.5 percentage points.

From 2005/06 to 2007/08, the difference in performance on the grade 4 math assessment between FLEP and LEP students increased 3.3 percentage points, from 20.2 percentage points to 23.5, whereas the difference between FLEP and general education students decreased 2.8 percentage points, from 12.2 percentage points to 9.4.

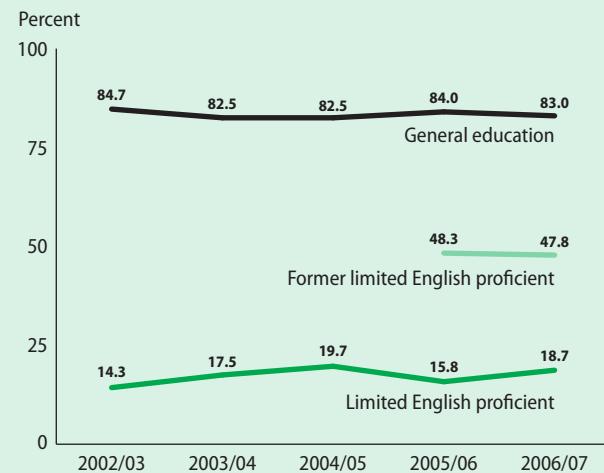
Grade 8

Achievement in language arts literacy and math in grade 8 is measured using the Grade Eight Proficiency Assessment (GEPA).

Language arts literacy. LEP students' performance on the grade eight language arts literacy assessment increased 4.4 percentage points from

FIGURE 6

Percentage of students scoring at the proficient or advanced proficient level in language arts literacy on the Grade Eight Proficiency Assessment, by English proficiency status, 2002/03–2006/07



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 86,772$ in 2002/03, $n = 87,779$ in 2003/04, $n = 87,670$ in 2004/05, $n = 87,049$ in 2005/06, and $n = 86,619$ in 2006/07; for limited English proficient students, $n = 3,392$ in 2002/03, $n = 3,893$ in 2003/04, $n = 2,806$ in 2004/05, $n = 2,437$ in 2005/06, and $n = 2,384$ in 2006/07; for former limited English proficient students, $n = 806$ in 2005/06 and $n = 1,012$ in 2006/07.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

2002/03 to 2006/07 (figure 6). In contrast, general education students' performance decreased 1.7 percentage points. As a result, the achievement gap in grade 8 language arts between LEP and general education students narrowed 6.1 percentage points, from 70.4 percentage points to 64.3.

The average achievement gap in language arts literacy between LEP and general education students for 2002/03–2006/07 was wider in grade 8 (66.1 percentage points) than in grade 3 (37.3 percentage points) and grade 4 (43.5 percentage points).

From 2005/06 to 2006/07, FLEP students' performance on the grade 8 language arts literacy assessment decreased less than 1 percentage point, and general education students' performance decreased 1.0 percentage point. In contrast, LEP students' performance increased 2.9 percentage

points. Unlike grades 3 and 4 language arts literacy, FLEP students' performance on the grade 8 language arts literacy assessment was closer to that of LEP students than to that of general education students. By 2006/07, the difference in performance between FLEP and general education students was 35.2 percentage points, whereas the difference between FLEP and LEP students was 29.1 percentage points.

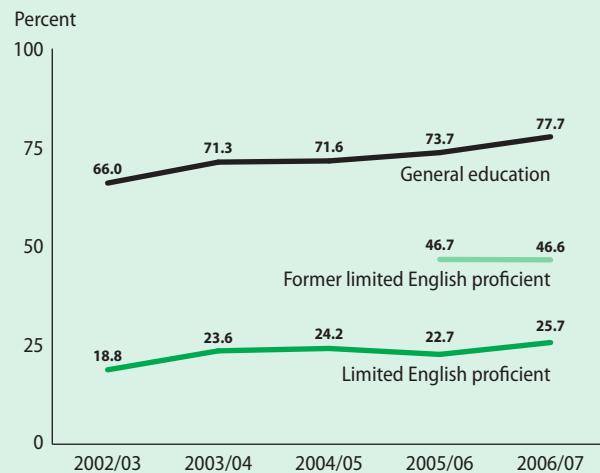
During the period studied, the difference in performance on the grade 8 language arts literacy assessment between FLEP and LEP students decreased 3.4 percentage points, from 32.5 percentage points to 29.1, whereas the difference between FLEP and general education students decreased less than 1 percentage point.

Math. From 2002/03 to 2006/07, LEP students' performance on the grade 8 math assessment did not increase as much as that of general education students (6.9 percentage points compared with 11.7 percentage points; figure 7). As a result, the achievement gap in grade 8 math between LEP students and general education students widened 4.8 percentage points, from 47.2 percentage points to 52.0.

The average achievement gap in math between LEP and general education students for 2002/03–2006/07 was wider in grade 8 (49.1 percentage points) than in grade 3 (26.0 percentage points) and in grade 4 (34.5 percentage points). However, the average achievement gap in grade 8 between LEP and general education students was narrower in math (49.1 percentage points) than in language arts literacy (66.1 percentage points).

From 2005/06 to 2006/07, FLEP students' performance on the grade 8 math assessment decreased less than 1 percentage point, whereas LEP students' performance increased 3.0 percentage points, and general education students' performance increased 4.0 percentage points. As with language arts literacy, FLEP students' performance on the grade 8 math assessment was closer to that of LEP students than to that of general

FIGURE 7
Percentage of students scoring at the proficient or advanced proficient level in math on the Grade Eight Proficiency Assessment, by English proficiency status, 2002/03–2006/07



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 87,041$ in 2002/03, $n = 88,045$ in 2003/04, $n = 87,957$ in 2004/05, $n = 87,225$ in 2005/06, and $n = 86,940$ in 2006/07; for limited English proficient students, $n = 3,450$ in 2002/03, $n = 3,928$ in 2003/04, $n = 3,399$ in 2004/05, $n = 3,149$ in 2005/06, and $n = 2,962$ in 2006/07; for former limited English proficient students, $n = 811$ in 2005/06 and $n = 1,013$ in 2006/07.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

education students. By 2006/07, the difference in performance between FLEP and general education students was 31.1 percentage points, whereas the difference between FLEP and LEP students was 20.9 percentage points.

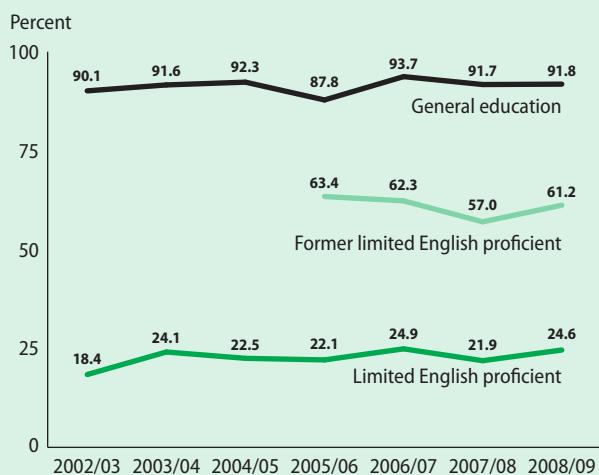
From 2005/06 to 2006/07, the difference in performance on the grade 8 math assessment between LEP and FLEP students decreased 3.1 percentage points, from 24.0 percentage points to 20.9, whereas the difference between general education and FLEP students increased 4.1 percentage points, from 27.0 percentage points to 31.1.

Grade 11

Achievement in language arts literacy and math in grade 11 is measured using the High School Proficiency Assessment.

FIGURE 8

Percentage of students scoring at the proficient or advanced proficient level in language arts literacy on the grade 11 High School Proficiency Assessment, by English proficiency status, 2002/03–2008/09



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 73,195$ in 2002/03, $n = 75,200$ in 2003/04, $n = 78,335$ in 2004/05, $n = 80,202$ in 2005/06, $n = 81,644$ in 2006/07, $n = 81,193$ in 2007/08, and $n = 80,608$ in 2008/09; for limited English proficient students, $n = 2,813$ in 2002/03, $n = 2,982$ in 2003/04, $n = 2,923$ in 2004/05, $n = 2,581$ in 2005/06, $n = 2,544$ in 2006/07, $n = 2,462$ in 2007/08, and $n = 2,281$ in 2008/09; for former limited English proficient students, $n = 539$ in 2005/06, $n = 539$ in 2006/07, $n = 604$ in 2007/08, and $n = 523$ in 2008/09.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

Language arts literacy. Overall performance on the grade 11 language arts literacy assessment fluctuated from 2002/03 to 2008/09 (figure 8). LEP students' performance increased 6.2 percentage points from 2002/03 to 2008/09, and general education students' performance increased 1.7 percentage points. As a result, the achievement gap in grade 11 language arts literacy between LEP and general education students narrowed 4.5 percentage points, from 71.7 percentage points to 67.2. The average achievement gap in language arts literacy between LEP and general education students for 2002/03–2008/09 was wider in grade 11 (68.6 percentage points) than in grade 3 (37.3 percentage points), grade 4 (43.5 percentage points), and grade 8 (66.1 percentage points).

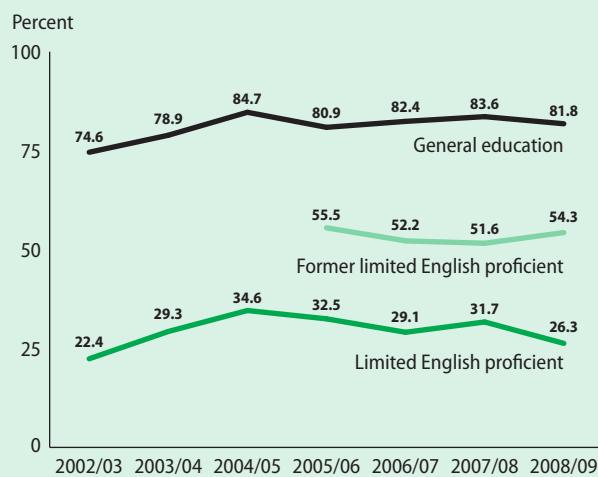
As with the language arts literacy assessments in grades 3, 4, and 8, for all years studied, FLEP students' performance on the grade 11 language arts literacy assessment was higher than that of LEP students, and general education students' performance was higher than that of FLEP students. From 2005/06 to 2008/09, FLEP students' performance decreased 2.2 percentage points, whereas LEP students' performance increased 2.5 percentage points, and general education students' performance increased 4.0 percentage points. During the period studied, FLEP students' performance was closer to that of general education students than to that of LEP students. By 2008/09, the difference in performance between FLEP and general education students was 30.6 percentage points, whereas the difference between FLEP and LEP students was 36.6 percentage points.

From 2005/06 to 2008/09, the difference in performance on the grade 11 language arts literacy assessment between FLEP and LEP students decreased 4.7 percentage points, from 41.3 percentage points to 36.6, whereas the difference between FLEP and general education students increased 6.2 percentage points, from 24.4 percentage points to 30.6.

Math. From 2002/03 to 2008/09, general education students' performance on the grade 11 math assessment increased more than that of LEP students (7.2 percentage points compared with 3.9 percentage points; figure 9). As a result, the achievement gap in grade 11 math between LEP and general education students increased 3.3 percentage points, from 52.2 percentage points to 55.5.

During the period studied, the average achievement gap in math between LEP and general education students was wider in grade 11 (51.6 percentage points) than in grade 3 (26.0 percentage points), grade 4 (34.5 percentage points), and grade 8 (49.1 percentage points). However, the average achievement gap in grade 11 between LEP and general education students was narrower in math (51.6 percentage points) than in language arts literacy (68.6 percentage points).

FIGURE 9
Percentage of students scoring at the proficient or advanced proficient level in math on the grade 11 High School Proficiency Assessment, by English proficiency status, 2002/03–2008/09



Note: New Jersey did not begin reporting the performance of former limited English proficient students until 2005/06. For general education students, $n = 73,074$ in 2002/03, $n = 75,002$ in 2003/04, $n = 77,715$ in 2004/05, $n = 80,122$ in 2005/06, $n = 81,592$ in 2006/07, $n = 81,149$ in 2007/08, and $n = 80,465$ in 2008/09; for limited English proficient students, $n = 2,802$ in 2002/03, $n = 2,960$ in 2003/04, $n = 2,904$ in 2004/05, $n = 2,583$ in 2005/06, $n = 2,539$ in 2006/07, $n = 2,473$ in 2007/08, and $n = 2,277$ in 2008/09; for former limited English proficient students, $n = 534$ in 2005/06, $n = 536$ in 2006/07, $n = 602$ in 2007/08, and $n = 521$ in 2008/09.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

From 2005/06 to 2008/09, FLEP students' performance on the grade 11 math assessment decreased 1.2 percentage points, and LEP students' performance decreased 6.2 percentage points, whereas general education students' performance increased less than 1 percentage point. From 2005/06 to 2007/08, FLEP students' performance was closer to that of LEP students than to that of general education students, but by 2008/09, their performance was closer to that of general education students than to that of LEP students. By 2008/09, the difference in performance between FLEP and general education students was 27.5 percentage points, whereas the difference between FLEP and LEP students was 28.0 percentage points.

From 2005/06 to 2008/09, the difference in performance on the grade 11 math assessment between

FLEP and LEP students increased 5.0 percentage points, from 23.0 percentage points to 28.0, whereas the difference between FLEP and general education students increased 2.1 percentage points, from 25.4 percentage points to 27.5.

STUDY LIMITATIONS

There are several limitations to this study:

- The study is purely descriptive. It does not explain changes in proficiency rates or the achievement gap between LEP and general education students.
- The study used cross-sectional state-level data, not longitudinal student-level data. Therefore, data trends represent different students across time as opposed to longitudinal trends of the same students.
- The study tracked and reported assessment data in language arts literacy and math for grade 8 students from 2002/03 to 2006/07 from the GEPA. In 2007/08, the GEPA became part of the NJ ASK 5–8. According to the New Jersey Department of Education website, the language arts literacy and math sections in the GEPA are not equivalent in item type, passage length, or testing time to those in the NJ ASK 5–8, making "direct comparisons of student performance across these tests . . . inappropriate." Because the grade 8 assessment data from 2007/08 onward are not comparable to data prior to 2007/08, trends for the entire period (2002/03–2008/09) could not be observed.
- New Jersey began disaggregating assessment data of FLEP students in 2005/06. Assessment data for FLEP students were unavailable for 2002/03, 2003/04, and 2004/05. Thus, the achievement trends of FLEP students were reported from 2005/06 to 2008/09 only.
- LEP student data on the New Jersey English language proficiency assessment (ACCESS

For student populations enrolled in public schools from 2002/03 to 2008/09 and in all grades studied, LEP students' performance in language arts literacy and math increased, but general education students' performance was higher than that of former LEP students

for ELLs) were not available to the authors of this study. Access to such data would have enabled researchers to link students' English proficiency levels to their performance on content assessments. Research has suggested that content assessment in English may not produce reliable and valid outcomes for LEP students at lower levels of English proficiency, particularly in content areas with a high level of language demand (see, for example, Abedi and

Herman 2010; Solano-Flores and Trumbull 2003). In math, English proficiency levels are associated with performance on solving word problems (Abedi, Leon, and Mirocha 2003). The linguistic complexity of the math assessment increases with each subsequent grade level as more test items, including word problems, are included. The linguistic complexities of the math assessments may have contributed to the achievement gap between LEP and general education students, particularly for students with low levels of English language proficiency.

- Another limitation of this study was lack of access to data on accommodations for LEP students. Some of the accommodations used by New Jersey, such as additional time to take the assessments, may have affected the comparability of assessment outcomes for LEP and general education students (Durán 2008).

CONCLUSIONS

The assessment data from the New Jersey Department of Education indicate that for student populations enrolled in public schools from 2002/03 to 2008/09, LEP students' performance in language arts literacy and math increased in all grades studied (grades 3, 4, 8, and 11). Nevertheless, in all grades and all years studied, general education students' performance was higher than that of LEP

students. Performance in language arts literacy and math was higher among FLEP students than among LEP students at all grades but was lower among FLEP students than among general education students.

The achievement gaps between LEP and general education students in language arts literacy and math were larger in grades 8 and 11 than in grades 3 and 4 for all years reported, a finding that is consistent with the literature (Abedi 2002; Fry 2007; Gándara et al. 2003; Rhode Island KIDS COUNT 2011). One possible explanation for the increased difference in grades 8 and 11 is the increase in the language demand of the tests in those grades. In math, English proficiency levels are associated with performance on solving word problems (Beal, Adams, and Cohen 2010), and the assessments in grades 8 and 11 include greater emphasis on word problems than on computational exercises. The addition of more word problems on the math assessment increases the linguistic complexity of the assessment. Thus, it is possible that the linguistic complexity of assessments may interfere with LEP students' ability to present a valid picture of what they know and are able to do. Students with content area knowledge in math will be unlikely to score at the proficient or advanced proficient level if they cannot interpret the vocabulary and linguistic structure of the assessment (Abedi 2004).

FLEP students' performance was higher than that of LEP students in all grades but not as high as that of general education students. This difference between FLEP and general education students' scores may be explained by the research finding that it generally takes about 5–10 years for students with a first language other than English to learn to think in English (Gonzalez, Brusca-Vega, and Yawkey 1997).

Across the period studied and in all grades studied, the achievement gap between LEP and general education students was narrower in math than in language arts literacy. This finding is consistent with other research that the achievement gap

between LEP and general education students is widest in language arts literacy, whose assessments' test items have a high level of language

demand, and narrower in content areas where language is not the target of measurement, such as math (Abedi 2002).

APPENDIX A

DATA AND METHODOLOGY

This appendix describes the data and methodology used in this study.

This study used both enrollment and assessment data. Enrollment data on limited English proficient (LEP) students in New Jersey for 2002/03–2008/09 were accessed from New Jersey Department of Education enrollment reports and its Bureau of Bilingual/English as a Second Language (ESL) Education (2009) website. LEP students included students enrolled in bilingual education, English as a second language, or English language services programs. Enrollment data included information from all public elementary (regular and charter schools), secondary (regular and charter schools), vocational, and special education schools. The data did not include information from nonpublic private or parochial schools.

Assessment data from New Jersey Statewide Assessment Reports were accessed through the New Jersey Department of Education Office of Student Assessment (2009b) website. The Excel data files were used for all analyses. The assessment data included the results for language arts literacy and for math on the New Jersey Assessment of Skills and Knowledge (NJ ASK) for grades 3 for 2003/04–2007/08⁵ and grade 4 for 2002/03–2007/08, on the Grade Eight Proficiency Assessment for 2002/03–2006/07,⁶ and on the High School Proficiency Assessment for grade 11 for 2002/03–2008/09.

Assessment data on LEP students included data on both current and former students. Current students (referred to as LEP students) included students enrolled in a language service program (for example, a bilingual education program). Former students (referred to as former LEP, or FLEP, students) included students who achieved English proficiency according to the state English language proficiency assessment and exited from a language assistance program within the previous two years. Both current and FLEP students included students with special education status.

General education students are students who are not enrolled in either a language assistance program or a special education program; this category includes FLEP students.

All students in New Jersey must take the statewide achievement assessments. The only exception is for LEP students in elementary or middle school who enter the United States and a language assistance program after July 1 of the academic year in which the assessment is administered. These newly entered LEP students do not have to take the language arts literacy portion of the New Jersey Assessment of Skills and Knowledge but must take the math and science sections. Newly entered LEP students in high school must take all sections of the state assessment (language arts literacy, math, and science).

The assessment data include information from all public elementary schools (regular and charter schools), all public middle and high schools (regular and charter schools), vocational schools, and special education schools. They do not include information from nonpublic private or parochial schools.

Assessment data for LEP and general education students were available for 2002/03–2008/09. Assessment data on FLEP students were available only for 2005/06–2007/08 because the New Jersey Department of Education did not start disaggregating by FLEP status until 2005/06; before 2005/06, “current LEP” was not listed as a title. Data on LEP students were for current students, however, as one New Jersey Department of Education document states, “current LEP is identical to the LEP title in previous years” (New Jersey Department of Education, Office of State Assessments 2007, p. 2).

The “general education” category in the New Jersey Department of Education assessment data was used because general education does not include LEP students. However, FLEP students were included in the general education category. The authors disaggregated the assessment data

for 2005/06–2008/09 by removing FLEP students from the total valid scores for the general education population and the number of general education students whose scores were at the proficient or advanced proficient level. They then calculated the percentages without FLEP students. For 2002/03–2004/05 data, however, FLEP students could not be disaggregated because they were included in general education student data without an appropriate identifier. To present consistent assessment data for all years in the study, FLEP student data were included in general education student data, as well as presented separately, for 2005/06–2008/09.

The authors compared the percentages of students who scored at the proficient or advanced proficient level, with FLEP students removed from the general education student data, to the percentages with FLEP students included. The results showed that including or excluding FLEP student data in the general education student data had little effect on the percentage of general education students who scored at the proficient or advanced proficient level. For example, in 2008/09, the percentage of general education students who scored at

the proficient or advanced proficient level on the grade 3 language arts literacy assessment was 91.2 percent with FLEP students included ($n = 83,135$) and 91.4 percent with FLEP students excluded ($n = 81,082$). Including FLEP student data in the general education student data made little difference because the number of FLEP students was small ($n = 2,053$) in comparison to the general education student population ($n > 80,000$), accounting for less than 3 percent of the general education student population.

Descriptive analyses were conducted on the enrollment and assessment data. For the enrollment data, the growth of the LEP student population (as a percentage of total student enrollment of the prior year) was tracked across time. In addition, the languages with the highest number of LEP student speakers were identified.

Assessment data were used to track the performance of LEP students and general education students on the language arts literacy and math tests over time. The trends show changes in performance of both current and FLEP students.

APPENDIX B

PERFORMANCE LEVEL DESCRIPTIONS FOR THE NEW JERSEY ASSESSMENTS

The following tables present the New Jersey Department of Education's knowledge and skills required for each performance level on the state assessments.

TABLE B1

Performance level descriptors for the New Jersey Assessment of Knowledge and Skills, by grade and subject area

Grade and subject area	Partially proficient	Proficient	Advanced proficient
Grade 3, language arts literacy	<ul style="list-style-type: none"> <i>Reading:</i> Students demonstrate limited ability to employ strategies needed to understand a variety of texts on a literal level. They may demonstrate some understanding of the central idea, supporting details, purpose, and organization of text and may express some understanding of the text in written responses. Students demonstrate inconsistent ability, however, to connect ideas, summarize relevant details, make inferences, or draw appropriate conclusions about the text in written responses. <i>Writing:</i> Students may develop a single focus and attempt to organize their writing using some supporting details that connect to the topic. They inconsistently follow conventions of written language and demonstrate limited word choice and sentence structure in developing text. Students at this level may not sustain a purpose for writing and may not elaborate on ideas. 	<ul style="list-style-type: none"> <i>Reading:</i> Students demonstrate ability to employ strategies to comprehend variety of texts literally and inferentially and to express understanding of the text in written responses. They recognize the central idea, supporting details, purpose, and organization of the text as well as some literary devices. They can make connections to the text, form opinions, and draw conclusions. They are able to synthesize ideas from the reading and to use them to analyze and extend the meaning of the text in written responses. <i>Writing:</i> Students use repertoire of strategies that enables them to communicate clear and cohesive message. They establish and sustain a purpose for writing and elaborate on information with specific details in developing the text. They connect ideas in a logical progression, provide support for opinions and conclusions, and generally use transitions and the conventions of written language as well as varied sentence structures and word choice in their writing. Students may take compositional risks. 	<ul style="list-style-type: none"> <i>Reading:</i> In addition to demonstrating the skills outlined for proficient students, students clearly and consistently demonstrate ability to synthesize, analyze, and extend the meaning of the text. They interact with the text and make meaningful connections in order to generate and extend ideas in written responses. <i>Writing:</i> In addition to consistently demonstrating the skills outlined for proficient students, students establish and sustain a single focus, organize and connect ideas with effective transitions, and elaborate with vivid supporting details. They vary sentence structures, choose precise words to convey meaning and message, and consistently use conventions of written language. Students may take compositional risks.

(CONTINUED)

TABLE B1 (CONTINUED)

Performance level descriptors for the New Jersey Assessment of Knowledge and Skills, by grade and subject area

Grade and subject area	Partially proficient	Proficient	Advanced proficient
Grade 3, math	<ul style="list-style-type: none"> Students have limited recall, recognition, and application of basic facts and informational concepts. Students perform simple routine procedures, such as computing a sum, difference, or product, and can use a specified procedure with some accuracy. They have limited ability to demonstrate number sense by using place value concepts and fractions. They may have difficulty determining the appropriate operation for a given situation and estimating results. Students can apply basic concepts of geometry and measurement. They have basic working knowledge of spatial sense, geometric properties, and geometric relationships. They can sometimes use appropriate measurement tools accurately. Students have basic understanding of how quantities are related to one another and how algebra can be used to concisely represent and analyze those relationships. They can recognize, describe, extend, and create simple patterns as well as solve simple problems involving functions. Students have basic understanding of how to apply concepts and methods of data analysis, probability, and discrete math. They are able to read graphs, tables, and charts. 	<ul style="list-style-type: none"> Students demonstrate recall, recognition, and application of facts and informational concepts. Students perform routine procedures, such as computing a sum, difference, or product, and can use a specified procedure with accuracy. They are able to demonstrate number sense by using place value concepts and fractions. They can determine the appropriate operation for a given situation and use estimation appropriately. Students understand and apply concepts of geometry and measurement. They can demonstrate a working knowledge of spatial sense, geometric properties, and geometric relationships. They use appropriate measurement tools accurately. Students demonstrate understanding of how quantities are related to one another and how algebra can be used to concisely represent and analyze those relationships. They can recognize, describe, extend, and create patterns as well as solve problems involving functions. Students understand and apply concepts and methods of data analysis, probability, and discrete math. They are able to read, interpret, and represent information in a graph, table, or chart. 	<ul style="list-style-type: none"> Students demonstrate the qualities outlined for proficient performance. Students determine strategies and procedures to solve routine and nonroutine problems. Students draw appropriate inferences and provide explanations that are consistently clear and thorough. Students consistently demonstrate ability to abstract relevant information, use multiple strategies or reasoning methods, and use various forms of representations to solve challenging problems. Students demonstrate understanding of the reasonableness of their answers.

(CONTINUED)

TABLE B1 (CONTINUED)

Performance level descriptors for the New Jersey Assessment of Knowledge and Skills, by grade and subject area

Grade and subject area	Partially proficient	Proficient	Advanced proficient
Grade 3, math (continued)	<ul style="list-style-type: none"> Students can identify and use basic mathematical terms as well as apply some reasoning methods to solve simple problems. 	<ul style="list-style-type: none"> Students use various forms of representation to illustrate steps to a solution and effectively communicate a variety of reasoning methods to solve multistep problems. They can explain steps and procedures for finding solutions, as well as check the reasonableness of their results. 	
Grade 4, language arts literacy	<ul style="list-style-type: none"> <i>Reading:</i> Students demonstrate limited ability to construct meaning from texts or employ the strategies needed to analyze and critique a variety of texts. They may demonstrate some understanding of the central idea, supporting details, purpose, and organization of a text and may express some understanding of the text in written responses. They demonstrate inconsistent ability, however, to connect ideas, summarize relevant details, make inferences, draw appropriate conclusions, or express opinions about the text in written responses. <i>Writing:</i> Students may develop a single focus and attempt to organize their writing using some details that connect to the topic. They inconsistently follow conventions of written language and demonstrate limited word choice and sentence structure in developing text. They may not sustain a purpose for writing and may not elaborate on ideas. 	<ul style="list-style-type: none"> <i>Reading:</i> Students construct meaning by employing a variety of strategies to synthesize, analyze, and critique text. They recognize the central idea, supporting details, purpose, and organization of the text. They demonstrate the ability to comprehend variety of texts literally and inferentially, make connections to the text, and understand the function of some literary devices. They are able to use relevant details to support opinions and conclusions and to use them to analyze ideas and extend the meaning of the text in written responses. <i>Writing:</i> Students use a repertoire of strategies that enable them to communicate a clear and cohesive message. They establish and sustain a single focus, generally organize and connect ideas in a logical progression, and include relevant supporting details that elaborate on ideas. They demonstrate some fluency, with use of transitions, varied sentence structure, precise word choice, and conventions of written language. Students may attempt compositional risks. 	<ul style="list-style-type: none"> <i>Reading:</i> In addition to demonstrating the skills outlined for proficient students, students clearly and consistently demonstrate the ability to synthesize, analyze, and extend the meaning of the text. They interact with the text and make meaningful connections in order to generate and extend ideas in written responses. <i>Writing:</i> In addition to consistently demonstrating the skills outlined for proficient students, students establish and sustain a single focus, organize and connect ideas with effective transitions, and elaborate with vivid supporting details. They vary sentence structure, choose precise words to convey meaning and message, and consistently use conventions of written language.

(CONTINUED)

TABLE B1 (CONTINUED)

Performance level descriptors for the New Jersey Assessment of Knowledge and Skills, by grade and subject area

Grade and subject area	Partially proficient	Proficient	Advanced proficient
Grade 4, math	<ul style="list-style-type: none"> Students have limited recall, recognition, and application of basic mathematical concepts, skills, and vocabulary to solve problems involving real-world situations. Students understand and perform simple routine numerical operations of whole numbers but have limited ability to demonstrate number sense by using place value concepts, fractions, or decimals. They can compute simple sums and differences of fractions and decimals but have difficulty determining the appropriate operation for a given situation and estimating their results. Students understand and apply basic concepts of geometry and measurement. They demonstrate a basic working knowledge of spatial sense, geometric properties, and geometric relationships. They can use appropriate measurement tools to solve simple problems involving perimeter, area, and volume. They have a basic understanding of coordinate geometry and lines of symmetry. Students have basic understanding of how quantities are related to one another and how to represent and analyze those relationships using algebraic concepts. They can recognize, describe, extend, and create simple patterns as well as solve simple problems involving functions. 	<ul style="list-style-type: none"> Students demonstrate recall, recognition, and application of mathematical concepts, skills, and vocabulary to solve problems involving real-world situations. Students understand and perform numerical operations of whole numbers and can use a specified procedure with accuracy. They demonstrate number sense by using place value concepts, fractions, and decimals. They can compute sums and differences of fractions and decimals. They can determine the appropriate operation for a given situation and use estimation appropriately. Students understand and apply concepts of geometry and measurement. They demonstrate a working knowledge of spatial sense, geometric properties, and geometric relationships. They can use appropriate measurement tools to solve problems involving perimeter, area, and volume. They understand and apply concepts of coordinate geometry and can identify lines of symmetry. Students demonstrate understanding of how quantities are related to one another and how to represent and analyze those relationships using algebraic concepts. They can recognize, describe, extend, and create patterns as well as solve functions for a given variable, including inverse relationships. They can understand, name, and apply properties of operations and numbers. 	<ul style="list-style-type: none"> Students clearly and consistently demonstrate the qualities outlined for proficient performance and demonstrate thorough conceptual understanding of procedural and analytical skills. Students demonstrate the use of abstract thinking and provide explanations that are consistently clear and thorough. Students use both inductive and deductive reasoning to solve nonroutine problems as well as consistently demonstrate ability to abstract relevant information, use multiple strategies or reasoning methods, and use various forms of representations to solve complex problems. Students demonstrate understanding of the reasonableness of their answers.

(CONTINUED)

TABLE B1 (CONTINUED)

Performance level descriptors for the New Jersey Assessment of Knowledge and Skills, by grade and subject area

Grade and subject area	Partially proficient	Proficient	Advanced proficient
Grade 4, math <i>(continued)</i>	<ul style="list-style-type: none"> Students have a basic understanding of concepts and methods of data analysis, probability, and discrete math. Students can read, interpret, and construct simple graphs, tables, and charts but often find it difficult to predict or make an informed decision based on information retrieved from a variety of sources. They demonstrate limited skills using tools and strategies for representing, organizing, and interpreting data. They can solve simple problems involving mean, median, and mode. Students can identify and use basic mathematical terms and apply some reasoning methods to solve simple problems. 	<ul style="list-style-type: none"> Students have understanding of how to apply the concepts and techniques of data analysis, probability, and discrete math. They can read, interpret and construct graphs, tables, and charts as well as predict or make informed decisions based on information retrieved from a variety of sources. They demonstrate skills using tools and strategies for representing, organizing, and interpreting data as well as solve problems involving the mean, median, and mode. Students use various forms of representation to illustrate steps to a solution and effectively communicate a variety of reasoning methods to solve multistep problems. They can explain steps and procedures for finding solutions as well as check the reasonableness of their results. 	

Source: New Jersey Department of Education, Office of State Assessments 2009a.

TABLE B2

Performance level descriptors for the Grade Eight Proficiency Assessment, by subject area

Subject area	Partially proficient	Proficient	Advanced proficient
Language arts literacy	—	<ul style="list-style-type: none"> Students are able to construct meaning as they generate their own texts and work with texts generated by others. They show an overall understanding of the text at literal and inferential levels. They are able to connect with prior knowledge while interacting with, interpreting, and analyzing text. Reading: Students are able to identify and discuss central themes, supporting details, and organizational structures of text. They can extrapolate and synthesize information, monitor their understanding of text, and identify a purpose for reading. They are able to identify support for and discuss opinions and conclusions as well as to explain textual conventions and literary elements. Writing: Students are able to develop a central theme, supporting details, and an organizational structure. They establish and sustain a purpose for writing and elaborate on information as they monitor development of text. They are able to provide support for opinions and conclusions and to use textual and literary elements appropriately. 	<ul style="list-style-type: none"> Students are able to construct and extend meaning as they generate their own texts and work with texts generated by others. Students show sophisticated understanding of the abstract themes and ideas that build a text and extend information. Students are able to connect with prior knowledge while interacting with, interpreting, analyzing, and critiquing text. Students consistently demonstrate the qualities outlined for proficient students. Students demonstrate the ability to synthesize, analyze, and evaluate written text. Students are able to manipulate understanding and show a high degree of sustained control over textual conventions and literary elements.

(CONTINUED)

TABLE B2 (CONTINUED)

Performance level descriptors for the Grade Eight Proficiency Assessment, by subject area

Subject area	Partially proficient	Proficient	Advanced proficient
Math	—	<ul style="list-style-type: none"> Students demonstrate evidence of conceptual understanding and procedural and analytic skills. They demonstrate the ability to apply mathematical skills and knowledge to theoretical and real-world situations. They communicate the required skills and make connections within and among mathematical content areas. Students demonstrate thorough understanding of basic arithmetic operations—an understanding sufficient for problem solving in practical situations. They understand the connections among fractions, decimals, percents, and other mathematical topics. Students understand and apply geometric properties and spatial relationships; apply the principles of similarity, symmetry, and coordinate geometry; interpret data and graphs; determine probabilities; apply the concepts and methods of discrete math; and use algebraic concepts and processes. 	<ul style="list-style-type: none"> Students demonstrate clear and consistent evidence of thorough conceptual understanding and of procedural and analytic skills. Students consistently demonstrate the qualities outlined for proficient performance. In addition, they demonstrate the use of abstract thinking and provide explanations that are consistently clear and thorough.

— is not available.

Source: New Jersey Department of Education, Office of State Assessments 2009a.

TABLE B3

Performance level descriptors for the High School Proficiency Assessment (grade 11), by subject area

Subject area	Partially proficient	Proficient	Advanced proficient
Language arts literacy	<ul style="list-style-type: none"> Students may demonstrate some understanding of purpose and audience as they generate text and examine text generated by others. Although they attempt to comprehend text generated by others, understanding may be inconsistent at both literal and inferential levels. Students may be able to identify the purpose, central idea, supporting details, and basic patterns of text organization, but they do so without consistency. <i>Reading:</i> Students may attempt to construct meaning, draw inferences from text, and identify some literary elements, but they display some difficulty recognizing and reconciling contradictory or flawed understanding. <i>Writing:</i> Students may attempt to address the intended audience and task, but they may introduce confusion in their organization, development, or expression of key ideas and supporting details. They may use some prior knowledge, reflection, or personal experience to generate original text, but attempts to elaborate key ideas may be limited, contradictory, or inconsistent with the focus of the writing. 	<ul style="list-style-type: none"> Students demonstrate understanding of purpose and audience as they examine text generated by themselves and others. They show overall comprehension of text at literal and inferential levels. They use prior knowledge, reflection, or personal experience to generate original text. Students are able to distinguish and identify the purpose, main idea, supporting details, and basic patterns of text organization. As active readers, they interact with text to construct meaning, draw inferences from text, and identify literary elements and devices. Students consistently and effectively address the intended audience and task. They are able to communicate clearly by organizing, developing, and presenting a coherent progression of ideas. 	<ul style="list-style-type: none"> Students consistently demonstrate the skills outlined for proficient students. They demonstrate the ability to synthesize and extend meaning. Students understand organizational structures, identify tone or style, and analyze the effects of literary concepts and the effects of literary devices on the reader. They demonstrate critical reflection and analysis of text. Students exhibit individual writing styles. There is fluidity in the progression of ideas that are supported by relevant and concise details. Students employ rhetorical devices, precise diction, and sentence structure to enhance meaning.

(CONTINUED)

TABLE B3 (CONTINUED)

Performance level descriptors for the High School Proficiency Assessment (grade 11), by subject area

Subject area	Partially proficient	Proficient	Advanced proficient
Math	<ul style="list-style-type: none"> Students demonstrate limited evidence of conceptual and analytical understanding of mathematical knowledge, procedures, skills, and process across all four content standards (number and numerical operations; geometry and measurement; patterns and algebra; and data analysis, probability, and discrete math). They inconsistently demonstrate ability to: <ul style="list-style-type: none"> Compute or estimate answer to problems involving integers, rational numbers, and so forth. Assess, identify, and apply the appropriate formula for a variety of computational, algebraic, and geometric models. Collect, organize, represent, display, and interpret data. Understand and apply geometric principles in relationship to real-world applications. Represent and analyze relationships among variable quantities and solve problems involving patterns, functions, and algebraic concepts and processes. Apply and interpret the concepts of probability and discrete math to solve problems. Students comprehend some mathematical vocabulary and communicate their reasoning ineffectually within and among the mathematical content areas. 	<ul style="list-style-type: none"> Students demonstrate evidence of knowledge in all four content standards (number and numerical operations; geometry and measurement; patterns and algebra; and data analysis, probability, and discrete math). Students consistently demonstrate the ability to compute or estimate an answer to problem involving integers, rational numbers, and so forth. Students can assess, identify, and apply the appropriate formula for a variety of computational, algebraic, and geometric models. Students can collect, organize, represent, display, and interpret data. Students understand and apply geometric principles in relationship to real-world applications. Students demonstrate solid performance in practical applications. 	<ul style="list-style-type: none"> Students consistently demonstrate the skills outlined for proficient students. They can analyze, synthesize, extend, and generalize math concepts in order to form conclusions and make predictions. Students can create or extrapolate a rule or formula for a specific scenario. Students demonstrate the ability to move fluidly between the algebraic and geometric and the concrete and abstract.

Source: New Jersey Department of Education, Office of State Assessments 2009a.

APPENDIX C

PERCENTAGE OF STUDENTS SCORING AT THE PROFICIENT OR ADVANCED PROFICIENT LEVELS IN NEW JERSEY'S ASSESSMENT PROGRAM

This appendix provides information on the performance (percentage scoring at the proficient

or advanced proficient level) of students on the grade 3 New Jersey Assessment of Skills and Knowledge (table C1), the grade 4 New Jersey Assessment of Skills and Knowledge (table C2), the Grade Eight Proficiency Assessment (table C3), and the grade 11 High School Proficiency Assessment (table C4).

TABLE C1

Percentage of students scoring at the proficient or advanced proficient level on the grade 3 New Jersey Assessment of Skills and Knowledge, by subject area and English proficiency status, 2003/04–2007/08

Subject area and English proficiency status	2003/04	2004/05	2005/06	2006/07	2007/08
Language arts literacy					
General education	86.4	89.2	88.8	89.1	91.2
LEP	48.8	50.1	48.2	51.4	59.7
FLEP	—	—	75.4	77.5	82.8
Math					
General education	81.6	86.8	90.6	91.0	90.2
LEP	54.8	59.2	66.0	65.1	65.3
FLEP	—	—	84.5	84.2	84.1

LEP is limited English proficient; FLEP is former limited English proficient.

— is not available because New Jersey did not begin reporting the performance of FLEP students until 2005/06.

Note: The New Jersey Assessment of Skills and Knowledge 3 was field tested in May 2003. The first operational third grade test was administered during the 2003/04 school year.

Source: New Jersey Department of Education, Office of State Assessments 2009b.

TABLE C2

Percentage of students scoring at the proficient or advanced proficient level on the grade 4 New Jersey Assessment of Skills and Knowledge, by subject area and English proficiency status, 2002/03–2007/08

Subject area and English proficiency status	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Language arts literacy						
General education	86.1	90.3	88.9	87.0	87.5	88.7
LEP	31.4	48.7	46.2	44.4	44.6	52.5
FLEP	—	—	—	67.6	68.3	73.2
Math						
General education	74.8	78.4	86.1	87.7	89.7	89.6
LEP	34.0	47.2	51.2	55.3	54.8	56.7
FLEP	—	—	—	75.5	77.7	80.2

LEP is limited English proficient; FLEP is former limited English proficient.

— is not available because New Jersey did not begin reporting the performance of FLEP students until 2005/06.

Source: New Jersey Department of Education, Office of State Assessments 2009b.

TABLE C3

Percentage of students scoring at the proficient or advanced proficient level on the Grade Eight Proficiency Assessment, by subject area and English proficiency status, 2002/03–2006/07

Subject area and English proficiency status	2002/03	2003/04	2004/05	2005/06	2006/07
Language arts literacy					
General education	84.7	82.5	82.5	84.0	83.0
LEP	14.3	17.5	19.7	15.8	18.7
FLEP	—	—	—	48.3	47.8
Math					
General education	66.0	71.3	71.6	73.7	77.7
LEP	18.8	23.6	24.2	22.7	25.7
FLEP	—	—	—	46.7	46.6

LEP is limited English proficient; FLEP is former limited English proficient.

— is not available because New Jersey did not begin reporting the performance of FLEP students until 2005/06.

Source: New Jersey Department of Education, Office of State Assessments 2009b.

TABLE C4

Percentage of students scoring at the proficient or advanced proficient level on the grade 11 High School Proficiency Assessment, by subject area and English proficiency status, 2002/03–2008/09

Subject area and English proficiency status	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
Language arts literacy							
General education	90.1	91.6	92.3	87.8	93.7	91.7	91.8
LEP	18.4	24.1	22.5	22.1	24.9	21.9	24.6
FLEP	—	—	—	63.4	62.3	57.0	61.2
Math							
General education	74.6	78.9	84.7	80.9	82.4	83.6	81.8
LEP	22.4	29.3	34.6	32.5	29.1	31.7	26.3
FLEP	—	—	—	55.5	52.2	51.6	54.3

LEP is limited English proficient; FLEP is former limited English proficient.

— is not available because New Jersey did not begin reporting the performance of FLEP students until 2005/06.

Source: New Jersey Department of Education, Office of State Assessments 2009b.

APPENDIX D
ANNUAL AND AVERAGE DIFFERENCES
AMONG LEP, FLEP, AND GENERAL EDUCATION
STUDENTS IN NEW JERSEY'S TESTING PROGRAM

This appendix provides information on the differences in the performance (percentage of

students scoring at the proficient or advanced proficient level) of general education students and limited English proficient (LEP) students, general education students and former LEP (FLEP) students, and FLEP students and LEP students in language arts literacy (table D1) and math (table D2).

TABLE D1

Differences in the percentage of students scoring at the proficient or advanced proficient level in language arts literacy, among LEP, FLEP, and general education students, by grade, 2002/03–2008/09

Assessment and comparison	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	Average across years studied
New Jersey Assessment of Skills and Knowledge, grade 3								
General education and LEP	na	37.6	39.1	40.6	37.7	31.5	^a	37.3
General education and FLEP	—	—	—	13.4	11.6	8.4	^a	11.1
FLEP and LEP	—	—	—	27.2	26.1	23.1	^a	25.5
New Jersey Assessment of Skills and Knowledge, grade 4								
General education and LEP	54.7	41.6	42.7	42.6	42.9	36.2	^a	43.5
General education and FLEP	—	—	—	19.4	19.2	15.5	^a	18.0
FLEP and LEP	—	—	—	23.2	23.7	20.7	^a	22.5
Grade Eight Proficiency Assessment								
General education and LEP	70.4	65.0	62.8	68.2	64.3	na	na	66.1
General education and FLEP	—	—	—	35.7	35.2	na	na	35.5
FLEP and LEP	—	—	—	32.5	29.1	na	na	30.8
High School Proficiency Assessment, grade 11								
General education and LEP	71.7	67.5	69.8	65.7	68.8	69.8	67.2	68.6
General education and FLEP	—	—	—	24.4	31.4	34.7	30.6	30.3
FLEP and LEP	—	—	—	41.3	37.4	35.1	36.6	37.6

LEP is limited English proficient; FLEP is former limited English proficient.

na is not applicable because the assessment was not administered that year.

— is not available because New Jersey did not begin reporting the performance of FLEP students until 2005/06.

a. Not included in the analysis of this report because the assessment was changed in 2008/09.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

TABLE D2

Differences in the percentage of students scoring at the proficient or advanced proficient level in math, among LEP, FLEP, and general education students, by grade, 2002/03–2008/09

Assessment and comparison	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	Average across years studied
New Jersey Assessment of Skills and Knowledge, grade 3								
General education and LEP	na	26.8	27.6	24.6	25.9	24.9	^a	26.0
General education and FLEP	—	—	—	6.1	6.8	6.1	^a	6.3
FLEP and LEP	—	—	—	18.5	19.1	18.8	^a	18.8
New Jersey Assessment of Skills and Knowledge, grade 4								
General education and LEP	40.8	31.2	34.9	32.4	34.9	32.9	^a	34.5
General education and FLEP	—	—	—	12.2	12.0	9.4	^a	11.2
FLEP and LEP	—	—	—	20.2	22.9	23.5	^a	22.2
Grade Eight Proficiency Assessment								
General education and LEP	47.2	47.7	47.4	51.0	52.0	na	na	49.1
General education and FLEP	—	—	—	27.0	31.1	na	na	29.1
FLEP and LEP	—	—	—	24.0	20.9	na	na	22.5
High School Proficiency Assessment, grade 11								
General education and LEP	52.2	49.6	50.1	48.4	53.3	51.9	55.5	51.6
General education and FLEP	—	—	—	25.4	30.2	32.0	27.5	28.8
FLEP and LEP	—	—	—	23.0	23.1	19.9	28.0	23.5

LEP is limited English proficient; FLEP is former limited English proficient.

na is not applicable because the assessment was not administered that year.

— is not available because New Jersey did not begin reporting the performance of FLEP students until 2005/06.

a. Not included in the analysis of this report because the assessment was changed in 2008/09.

Source: Authors' analysis based on data from New Jersey Department of Education, Office of State Assessments (2009b).

NOTES

1. Students whose first language is not English and who are in the process of learning English are referred to by different names across the United States, such as English language learner (ELL) or limited English proficient (LEP) students. This report refers to such students as LEP students to remain consistent with the New Jersey state terminology.
2. The request came to *Ask a REL*, which is a collaborative reference desk service of the 10 regional educational laboratories that provides references, referrals, and brief responses in the form of citations on research-based education questions. More information can be found at <http://ies.ed.gov/ncee/edlabs/askarel/index.asp>.
3. Because science data are available only since 2004/05, science results are not described in this report.
4. The inclusion of former LEP student data in the general education student data made little difference because former LEP students accounted for less than 3 percent of the general education student population. More information is provided in appendix A.
5. The NJ ASK for grade 3 was field tested in May 2003. The first operational test for grade 3 was administered in 2003/04. The grade 3 and grade 4 tests were redesigned in 2009, so the grades 3 and 4 reading and math results starting in 2008/09 are not comparable to the results prior to 2008/09.
6. The NJ ASK for grades 5–8 was administered for the first time in spring 2008. For grade 8, the test replaced the GEPA. The results of the redesigned NJ ASK 5–8 for language arts literacy and math are not comparable with those of GEPA because of changes in test design.

REFERENCES

Abedi, J. (2001). *Assessment and accommodations for English language learners: issues and recommendations* (CRESST Policy Brief 4). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing.

Abedi, J. (2002). Standardized achievement tests and English language learners: psychometrics issues. *Educational Assessment*, 8(3), 231–257.

Abedi, J. (2004). The No Child Left Behind Act and English language learners: assessment and accountability issues. *Educational Researcher*, 33(1), 4–14.

Abedi, J., and Dietel, R. (2004). Challenges in the No Child Left Behind Act for English-language learners. *Phi Delta Kappan*, 85(10), 782–785.

Abedi, J., and Gándara, P. (2006). Performance of English language learners as a subgroup in large-scale assessment: interaction of research and policy. *Educational Measurement: Issues and Practices*, 26(5), 36–46.

Abedi, J., and Herman, J.L. (2010). Assessing English language learners' opportunity to learn mathematics: issues and limitations. *Teacher's College Record*, 112(3), 723–746.

Abedi, J., Leon, S., and Mirocha, J. (2003). *Impact of student language background on content-based performance: analyses of extant data* (CSE Rep. No. 603). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing.

American Educational Research Association, American Psychological Association, and National Council on Measurement in Education. (1999). *Standards for educational and psychological testing*. Washington, DC: American Psychological Association.

Beal, C.R., Adams, N., and Cohen, P.R. (2010). Reading proficiency and mathematics problem solving by high school English Language Learners. *Urban Education*, 44, 58–74.

Durán, R.P. (2008). Assessing English-language learners' achievement. *Review of Research in Education*, 32, 292–327.

Flannery, M.E. (2009). A new look at America's English language learners [Electronic version]. *NEA Today* (2009, January). Retrieved March 18, 2009, from www.nea.org/home/29160.htm.

Fry, R. (2007). *How far behind in math and reading are English language learners?* Washington, DC: Pew Hispanic Center. Retrieved May 21, 2011, from <http://pewhispanic.org/files/reports/76.pdf>.

Gándara, P., Rumberger, R., Maxwell-Jolly, J., and Callahan, R. (2003). *English learners in California schools: unequal resources, unequal outcomes*. *Educational Policy Analysis Archives*, 11(36), ISSN 1068-2341. Retrieved July 15, 2010, from <http://epaa.asu.edu/ojs/article/viewFile/264/390>.

Gonzalez, V., Brusca-Vega, R., and Yawkey, T. (1997). *Assessment and instruction of culturally and linguistically diverse students with or at-risk of learning problems: from research to practice*. Boston, MA: Allyn & Bacon.

Migration Policy Institute. (2010a). MPI data hub: migration facts, stats, and maps. States ranked by number of foreign born: 1990, 2000, 2007, 2008. Washington, DC: Migration Policy Institute. Retrieved May 26, 2010, from www.migrationinformation.org/databus/files/MPIDataHub_ACS_2008-NumberForeignBorn.xls.

Migration Policy Institute. (2010b). MPI data hub: New Jersey fact sheet Social & Demographic Characteristics. Washington, DC: Migration Policy Institute. Retrieved May 26, 2010, from www.migrationinformation.org/DataHub/state.cfm?ID=NJ.

National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs. (2011). *The growing numbers of English learner students: 1998/99–2008/09*. Washington, DC: National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs. Retrieved August 19, 2011, from www.ncela.gwu.edu/files/uploads/9/growingLEP_0809.pdf.

New Jersey Department of Education. (2008). New Jersey Bilingual Education Administration Code. Trenton, NJ. Retrieved February 21, 2010, from www.state.nj.us/education/code/current/title6a/chap15.pdf.

New Jersey Department of Education. (2009). DOE data reports. Enrollment (total enrollment): 2002/03 to 2008/09. Trenton, NJ. Retrieved December 3, 2009, from www.nj.gov/education/data/enr/.

New Jersey Department of Education, Bureau of Bilingual/ESL Education. (2004). *Annual bilingual/ESL/ELS supervisors training: 2004*. Trenton, NJ. Retrieved August 9, 2011, from www.state.nj.us/education/bilingual/pd/pp/coordinators.ppt.

New Jersey Department of Education, Bureau of Bilingual/ESL Education. (2005). *Annual bilingual/ESL/ELS supervisors training: 2005*. Trenton, NJ. Retrieved August 9, 2011, from www.state.nj.us/education/bilingual/pd/pp/coordinators05.ppt.

New Jersey Department of Education, Bureau of Bilingual/ESL Education. (2009). DOE archives. Bilingual education: Statistics. State profile of limited English proficient students and languages with the highest LEP enrollment statewide. Trenton, NJ. Retrieved August 9, 2011, from www.state.nj.us/education/archive/bilingual/statistics/.

New Jersey Department of Education, Office of State Assessments. (2007). *2006 New Jersey Statewide Assessment Reports: Grade Eight Proficiency Assessment spring 2006. 1999–2006 GEPA graphs by percent proficiency and above*. Trenton, NJ. Retrieved December 3, 2009, from www.state.nj.us/education/schools/achievement/2007/gepa/graphs.pdf.

New Jersey Department of Education, Office of State Assessments. (2009a). Performance Level Descriptors. Trenton, NJ. Retrieved December 3, 2009, from www.state.nj.us/education/assessment/descriptors/.

New Jersey Department of Education, Office of State Assessments. (2009b). Statistics. Trenton, NJ. Retrieved December 3, 2009, from www.state.nj.us/education/schools/achievement/.

No Child Left Behind (NCLB) Act of 2001. (2001). Pub. L. No. 107-110. Retrieved December 15, 2008, from www2.ed.gov/policy/elsec/leg/esea02/107-110.pdf.

No Child Left Behind (NCLB) Glossary. (2001). Retrieved May 14, 2011, from <http://www2.ed.gov/nclb/index/az/glossary.html?src=az#2>.

Rhode Island KIDS COUNT. (2011). *2011 Rhode Island Kids Count Factbook: English Language Learners Indicator*. Retrieved May 21, 2011, from www.rikidscount.org/matriarch/documents/11_Factbook_Indicator_52.pdf.

Shin, H.B., and Bruno, R. (2003). *Language use and English-speaking ability: 2000*. Washington, DC: U.S. Census Bureau. Retrieved July 30, 2010, from www.census.gov/prod/2003pubs/c2kbr-29.pdf.

Shin, H.B., and Kominski, R.A. (2010). *Language use in the United States: 2007, American Community Survey reports, ACS-12*. Washington, DC: U.S. Census Bureau. Retrieved August 19, 2011, from www.census.gov/prod/2010pubs/acs-12.pdf.

Solano-Flores, G., and Trumbull, E. (2003). Examining language in context: the need for new research and practice paradigms in the testing of English-language learners. *Educational Researcher*, 32(2), 3–13.

Strickland, D.S., and Alvermann, D.E. (2004). *Bridging the literacy achievement gap grades 4–12*. New York, NY: Teacher's College Press.

U.S. Department of Education, National Center for Education Statistics. (2010). *The nation's report card: 2009 reading and mathematics results*. Washington, DC: U.S. Department of Education. Retrieved May 26, 2010, from <http://nationsreportcard.gov/>.

U.S. Department of Homeland Security. (2010). *Yearbook of immigration statistics: 2009*. Washington, DC: Author. Retrieved May 26, 2010, from www.dhs.gov/files/statistics/publications/yearbook.shtm.

Wolf, M.K., Herman, J.L., Kim, J., Abedi, J., Leon, S., Griffin, N., Bachman, P.L., Chang, S.M., Farnsworth,

T., Jung, H., Nollner, J., and Shin, H.W. (2008). *Providing validity evidence to improve the assessment of English language learners* (CRESST Report 738). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing.

World-Class Instructional Design and Assessment (WIDA) Consortium. (2011). *ACCESS for ELLs interpretive guide for score reports spring 2011*. The Board of Regents of the University of Wisconsin System. Retrieved May 15, 2011, from www wida us/assessment/ACCESS/ScoreReports/ACCESS_Interpretive_Guide11 pdf.